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**COKER'S
PEDIGREED
SEEDS**

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**SPRING
CATALOG**
1919

PEDIGREED SEED COMPANY
OPERATING THE PEDIGREED SEED BREEDING AND EXPERIMENTAL FARMS
DAVID R. COKER, PRESIDENT
HARTSVILLE, SOUTH CAROLINA

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COKER'S PEDIGREED SEEDS

AND OTHER FINE SEEDS OF SOUTHERN STAPLE FARM CROPS

SPRING CATALOGUE

PEDIGREED SEED COMPANY, HARTSVILLE, S. C.

DAVID R. COKER, PRESIDENT

OPERATING THE PEDIGREED SEED BREEDING AND EXPERIMENTAL FARMS

The Work of the Plant Breeder-Seedsman

The plant breeder-seedsman is distinctly different from the ordinary seedsman. The ordinary seedsman does not often grow or sell his own seed, but usually buys in the open market from farmers and growers, taking the word of the grower as to the purity and productiveness of the crop. They are thus unable usually to give an absolute guarantee on their seeds. The laws of many States now compel all seedsmen to guarantee the vitality of seeds sold, but many have not the equipment for the germination and re-germination tests which are absolutely essential for such a guarantee.

The plant breeder-seedsman operates on a totally different plan—a plan perfectly easy to understand, but which requires an absolute adherence to the scientific principles of breeding and which involves a tremendous amount of detailed labor and scientific skill in the production of his product. His pedigreed strains are always grown from selected and tested individuals or groups of individuals just as pedigreed live stock are always descended from parents of proved and recorded efficiency. He begins with the selection of many individual plants, the seeds of which are tested the following year in plant-to-row tests under uniform conditions. The seeds from the high yielding rows which show uniformity and other desirable characters, are increased the following year in small increase blocks and are at the same time tested in variety tests against the parent strain and other well known varieties. The individual strain which finally shows the greatest money value under these severe tests is increased and sold as pedigreed seed.

His work is continuous from year to year, for even the best bred varieties will deteriorate and become non-uniform unless continually bred. His pedigreed seed are always grown from the best and latest productions of his breeding fields and his seed fields are always cultivated and grown under the supervision of his experts. His constant idea is the production of better and better strains of pure and uniform character which will make the most money for the farmer.

The careful plant breeder-seedsman will also handle his seed in the most scientific manner. He will gin or thresh them in a way to prevent mixture with other seeds; he will reclean and grade his seeds to remove all foreign matter and all the immature. He will brand and tag them carefully to prevent incorrect shipments; and finally, he will make accurate germination tests and discard every lot of seed which does not show high germination.

The Pedigreed Seed Company is distinctly a breeding organization. According to our information, it is doing the greatest amount of strictly scientific breeding of any private organization in the South. The seed it sells as pedigreed are the product of years of painstaking scientific effort. Its breeders are graduates of the great plant breeding school at Cornell University.

The Pedigreed Seed Company must charge more per bushel than ordinary seedsmen, but the planter in return not only gets the best that science can produce, but at the same time he is relieved of the risk which usually attends the buying of miscellaneous seed from ordinary seedsmen.

Our work is well known to the plant breeding department in Washington and to the agricultural authorities of this State, for we have worked in co-operation with both for years.

Although we have been conducting our plant breeding work for many years and have not yet realized from it financial returns at all commensurate with the effort and expense so far involved, we are much encouraged by the cordial appreciation of many of the intelligent and progressive Southern farmers. We are therefore, gradually expanding our breeding work in the confidence that the Southern farmer will support an enterprise founded on scientific principles and operated for his benefit.

We cordially invite visitors to our farms. We have had many visits from scientific agriculturists from all over the South and even from foreign countries, and we believe a day spent in our breeding fields and over our breeding and experimental records will amply repay any seeker after scientific agricultural knowledge and better and more practical farm methods.



OUR SEED BREEDING WORK

The beginning of our seed breeding work goes back to 1902, when our Mr. D. R. Coker became interested in the plant breeding work being carried on by Dr. H. J. Webber, of the United States Department of Agriculture. Realizing its great significance and its great value to Southern farmers, if properly carried out, he shortly began the selection and study of cotton with the idea of producing a more valuable product; a combination of longer staple and heavier production. A great deal of his time and thought being devoted to this work, he soon realized the great possibilities of making agriculture more profitable through the development of varieties of all our standard farm crops which would produce greater yields of better quality and of higher money value.

Thus started, this work has taken rapid strides forward and has expanded until it now embraces the breeding of one or more varieties of Cotton, Corn, Oats, Rye, Peas and other field crops, and we hope eventually to breed some of the principal varieties of all Southern Staple farm crops. We are spending thousands of dollars every year carrying on this work, and although we have been doing plant breeding work on our farms since 1902, not until 1909 did we offer Pedigreed Seed to the general public.

Breeding Long Staple Cotton

As with any breeding work, the ultimate aim is to produce a product of greater money value, so in our breeding work with cotton we have always attempted to breed in the cotton those qualities which make it of greater money value to the farmer and to the mills, as well. Length of staple being one of the primary bases of price, we immediately began selection to increase the length of fibre. Beginning with Jones Big Boll selected in 1902, a variety which measured $\frac{7}{8}$ in. to 1 in., we have, year by year, selected the longest fibred plants and, as is shown by the engraving produced here, we have gradually lengthened this staple until today our selections (which we have named Hartsville), make a fibre 1 5-16 in. to 1 $\frac{1}{8}$ in. long. In addition to selecting for length of staple, numerous other qualities were taken into consideration to make the cotton more valuable, among which are: uniformity of fibre, percentage of lint, yield of seed cotton per acre, percentage of waste fibre, strength of fibre, and the general plant qualities, including size of boll, resistance to disease, general resistance to adverse weather conditions, earliness and type of plant. All of these qualities affect the value of the cotton either from the cotton mill standpoint or from the farmer's standpoint. These facts explain why, as one planter wrote us, "Your cotton of the same length brought a higher price than other cottons of equal length."

It has, of course, required a long time and careful and expert breeding to produce these cottons. The average length of fibre added each year has averaged with one of our varieties less than 1-32 of an inch. With another variety it has been near 1-64 of an inch per year. In all of our breeding work with Long Staple Cotton for the past sixteen years we have produced only four strains of the Webber variety which we have considered worthy of introduction and recommendation and five strains of Hartsville.

We never offer seeds as "Coker's Pedigreed" until they have been bred and tested for at least four years and have made a performance record against other varieties that makes them worthy of our stamp of approval.





OUR METHOD OF SEED BREEDING

The plant-to-row method of breeding which we have adopted is recognized by all plant breeders and experiment stations as the best method of crop improvement. The plant breeder, like the animal breeder, must make the individual the unit of selection, and in this plant-to-row method, as the name implies, this idea is carried out. The plant-to-row method in a few words, means just this: Testing the seed of individual plants in separate rows, as near as possible under identical conditions of soil preparation, fertilization and cultivation; noting all the qualities throughout the season, harvesting or threshing each row to itself and recording the yields, qualities and characteristics of each. By this method only is it possible to identify the inherent qualities of the individual plants, and to isolate those valuable high-yielding plants which, under the same conditions and in competition with other plants, have proven their superiority.

This method of *proving the individual plant*, and then increasing and testing its progeny for three years, giving it a traceable pedigree back to the individual plant, is *our method*, and we offer for sale as "Coker's Pedigreed Seed" only the seed from these plants that have proven their value for three years by a high performance record.



HARVESTING EAR-TO-ROW CORN TESTS

In increasing these Pedigreed Seed for the public, we are ever mindful of the fact that even in the best bred stocks there are always natural variations away from the original type, and in order to keep our seed up to standard, we are careful to go over our increase blocks and discard those plants that vary seriously from type.

Actual Results

The most notable results of our plant breeding work are: 1st, High yielding cottons which bring from three to 18 cents per pound more than ordinary short staples; 2nd, A productive corn of high weevil resistance; 3rd, A uniform variety of oats which has out-yielded all other kinds in our variety tests; 4th, A high yielding strain of Abruzzi Rye, which, on account of its rapid growth; better quality and heavier grain yields is quickly supplanting the native types of rye and is being widely used for cover crop purposes. Besides these we have produced sorghum, peas, and a few useful varieties of other plants which are notable improvements over their parent types.

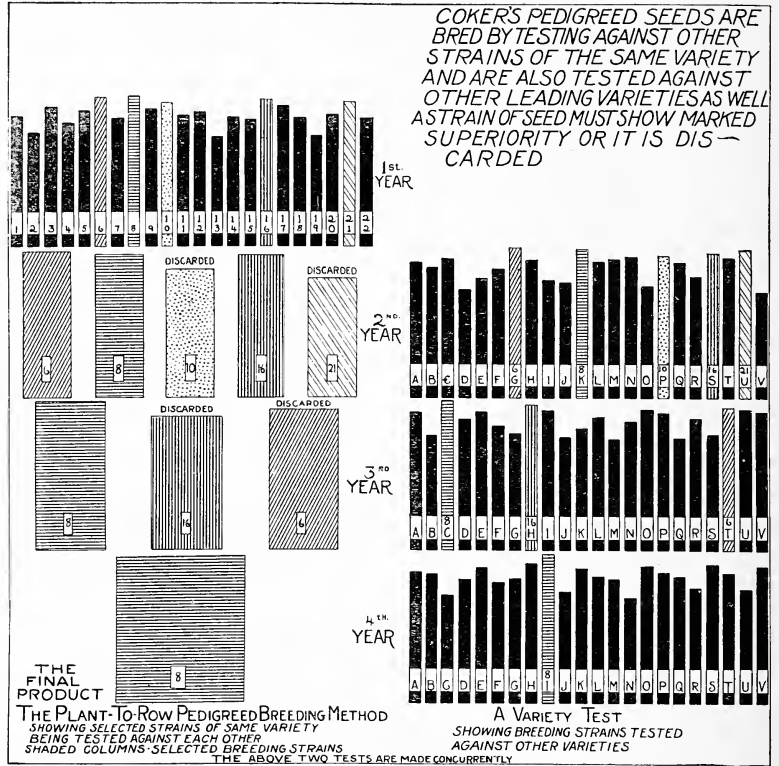


PLANT-TO-ROW TESTS OF GRAIN AND FIRST YEAR INCREASE BLOCKS



OUR PLANT BREEDING METHOD GRAPHICALLY ILLUSTRATED

This chart graphically illustrates the method we use in breeding. The first year is the plant-to-row tests, each row being planted with seed from a single plant. The best of these rows is selected for further testing in the increase blocks of the next year, and at the same time new plant-to-row tests are also made. The third year we test the highest yielding strains from the increase blocks of the preceding year and the highest yielding rows from the plant-to-row breeding blocks and as before begin over again with the plant-to-row test. The fourth year this is extended one step further and by that time we have by actual test eliminated the unfit and proved the best. This process is continued year after year and the Pedigreed strain of seed of one year may be discarded for a better strain the next year. In all this breeding work accurate records are kept of every individual strain and we are able to trace its ancestry or pedigree back to the original plant or plants.



Extent of Our Breeding Work

Individual tests were made in our breeding fields last year from fifty-four to two hundred and seventy selections from each of the varieties we are breeding. These tests are conducted with scientific accuracy and complete records kept of each individual plant. A single page in our record book giving data on thirty-three plants, contains ninety-nine separate field notes, two hundred and ninety-seven individual reports of yields, and two hundred and sixty-four calculations based on these reports—a total of six hundred and sixty entries on a single page. And all these figures and notes may reveal only one or two strains of seed that are worthy of further testing. *About ninety-nine per cent. of all our breeding work is discarded.*

Our Variety Tests

Our variety tests include nearly two hundred of the principal varieties of the South's leading field crops. Seed are, whenever possible, obtained from the producer or originator of the variety or strain. These tests are conducted with exactness and impartiality. It is this comparative test, carried on year after year, that finally determines the real value of a variety of seed. By this inflexible method the great claims of some seedsmen and growers are reduced to absurdities.

As shown in the chart above, our selected pedigree strains are not only tested against each other, but are also tested against other varieties as well. Not only must a selected strain of seed show superiority over other strains, but it must be superior to other varieties or it is discarded. Only the fittest can survive the rigid test to which all Coker's Pedigreed Seed are submitted.



OUR METHOD OF HANDLING SEED

Recleaning and Grading

In addition to our requirements of proper breeding of seeds, we demand also that our seeds shall be sound, vital and properly graded. No matter what the breeding or pedigree of the seed may be, it is an inferior product if it is full of trash, immature seeds and broken grains. For several years we have conducted accurate tests to determine the value of well graded seed. While we have always believed that there was a great difference in favor of well graded seed, the results obtained were far beyond our expectations. Read results of tests on page 7.

A Point to Keep in Mind

To say that a seed is recleaned does not mean that it is of first grade. Recleaning seed ordinarily means that the trash and dirt has been removed. This "recleaning" does not affect the yield. But when seed are properly graded, it means that all the light, immature and broken grains are removed, as well as all trash and foreign substance. It is, of course, quite expensive for a seedsman to thoroughly grade his seed and discard all of the lower grades, as the discarded part cannot be used except for feed purposes. But the difference in actual value of well-graded seed is so great that farmers everywhere should insist that all seed they buy should be carefully and properly graded.

Our Seed Cleaning Department

is operated under this instruction: "Every lot of seed must be recleaned and graded, removing all light, immature and broken seeds and all trash, dirt and foreign matter. It is better that a small proportion of good seed be thrown out than allow any inferior seed to go in." This rule is rigidly enforced even though it means at times a large loss to us. In grading oats for instance, we sometimes remove 25 per cent. in order to bring the product to the high standard of our requirements. Our large machine on which most of our grain is graded, is a double-decked, four-screen vertical air-blast machine of the most approved type, and does as perfect work as any similar machine to be found.

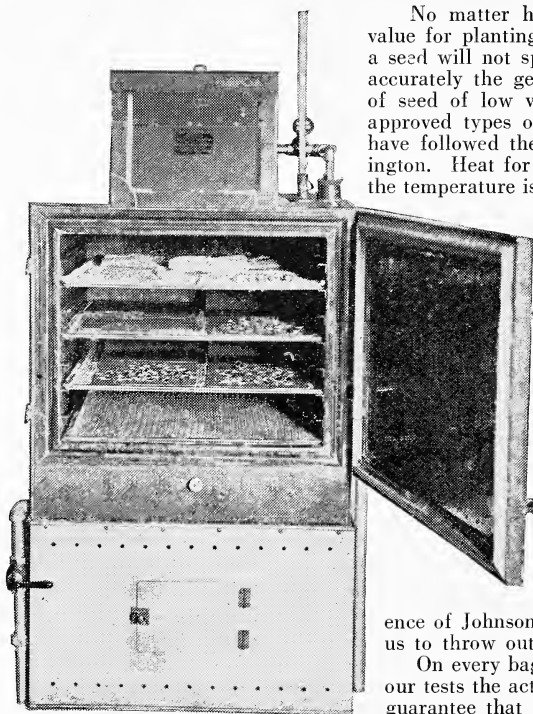


We also carefully reclean and grade all of our cotton seed. Our gins are fitted with special grading machines through which all cotton seed pass. So far as we know, our plant is the only one in the South operated by a seed concern, which recleans and grades all cotton seed. We do this at additional expense because we have proven conclusively that it handsomely pays the planter, and if we are to best serve his interest, we must furnish the most valuable seed that can be produced. The illustrations above, which are engraved from actual photographs, show the cotton as it goes to the gin, the nine grades of trash and the inferior seeds which our machines remove, and finally the grade of seed which we offer for sale.

The seeds we offer for sale as our own strains represent the cumulative results of fifteen years' scientific work in selecting and breeding field seeds by the plant-to-row method. During this time our seeds have been planted and tested in every Southern State with results which have shown conclusively that Coker's Pedigreed Seeds make bigger yields and better quality than ordinary seeds.



TESTED FOR GERMINATION AND PURITY



MOST IMPROVED TYPE ELECTRIC GERMINATOR

No matter how well bred or carefully handled a seed may be, its value for planting is only in proportion to its germination percentage. If a seed will not sprout, it is naturally of no value. In order to determine accurately the germination of our seeds, and guard against the shipment of seed of low vitality, we installed in our laboratory two of the most approved types of Electric Germinators. In adopting this apparatus, we have followed the lead of the U. S. Department of Agriculture at Washington. Heat for this germinator is furnished by an electric hot plate and the temperature is lowered by the use of an ice box. An electric thermostat regulates the heat and sustains an even and regular temperature at any degree required. Samples of every lot of seed we handle are tested with this apparatus and the percentage of germination accurately determined. Any falling below the high standards set by us are discarded for seed purposes.

It is needless to say that we would not have installed such an expensive apparatus nor would we go to the trouble and expense of testing all of our seeds if we were not thereby better serving the interests of our customers.

Purity Tests

Purity tests require a microscopic examination of all small seeds and a determination of the kind and nature of any impurities. In Sudan Grass, for instance, we are especially careful to determine the presence or absence of Johnson Grass or Sorghum Hybrids, both of which are very similar to pure Sudan seed. The pres-

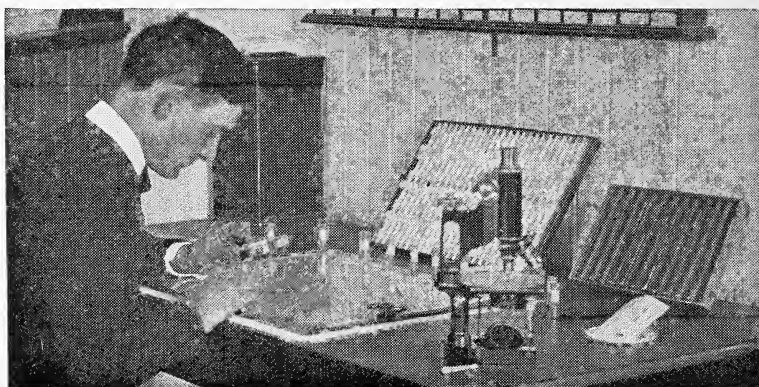
ence of Johnson Grass, no matter how small the proportion, would cause us to throw out for seed purposes any lot of Sudan.

On every bag of seed a tag is attached which gives in figures based on our tests the actual percentage of germination and purity above which we guarantee that particular bag of seed. Any failure of the seed to prove up to the figures we give lays us liable under the State Seed Inspection Laws. The value of such information and the laws behind them is apparent. Although the State Department of Agriculture makes no standard

requirement of quality for seeds, *our own standards are equal and above the high standards recommended by the State authorities.*

During its stay in our warehouse all seed is carefully examined frequently by seed experts to insure its vitality until it is shipped. Its position may be changed several times in order to prevent heating. Particularly is this necessary with cotton seed. For an absolute assurance experts often go into the sacks and examine the seed carefully. Wherever there is any question of a loss in vitality, additional germination tests are conducted.

As a final proof of our confidence in our seed, we have adopted a trade-mark which is registered in the United States Patent Office, which we use on our finest seeds. This trade-mark stands for us and our reputation and wherever it is placed it is our guarantee of highest quality.



EXPERT EXAMINING CLOVER SEED UNDER MICROSCOPE.



OUR EXPERIMENTAL WORK

In addition to our regular breeding work, we carry on each year experiments that have to do with actual every day farm problems; to determine the most profitable ways of crop production and farm procedure.

Every farmer should apply the test—Does it Pay—to every farm problem that he has to face. Such is the test we are applying to some of these problems and the results we publish (in brief) for the benefit of all who may wish to profit by our experience.

Fodder Pulling (Does it Pay)

We have concluded our Fodder Pulling Tests.

IT DOES NOT PAY to lose 7.5 bushel of corn per acre, or 16.8 per cent. of your corn crop, for the small amount of fodder you receive. Better save the expense of pulling, make more corn and buy your forage, in case you do not make enough.

Write for our Special Bulletin on this subject.

Cutting and Shocking Corn

With the increased interest in Live Stock production and the Dairy, it is becoming more prevalent for the farmer to cut and shock his corn about fodder pulling time and later to shread it and utilize the stalks and leaves as stover for feeding and breeding purposes. This is a practice recommended, but the question arises, will this method and handling affect the value of seed corn and influence the next year's crop production?

We have now a striking four-year test on this question:

FOUR-YEAR AVERAGE

Plot No.	Bushels per acre.	Pct.Corn. to cob.	Pct.Infr. Corn.
1. Corn standing	43.5	86.7	14.8
2. Corn cut and shocked	38.2	84.8	21.4
	5.3	1.9	3.4

Loss in yield due to cutting and shocking 12.2 per cent.

This is a big loss and while it may be offset by the feeding and bedding value of the stover for Live Stock, it should not be practiced on the fields used for getting seed corn. Such inferior corn would surely produce poor seed corn and give poor crop yields the following year. A one-year test on this particular point shows a loss of 3.4 bus. per acre, or 8 per cent.

Fertile Soil Seed vs. Poor Soil Seed

Heredity as a factor in the production of good seed and good crop yields is no longer a question in the minds of the intelligent framers of today, but the matter of environment as a factor in the production of good seed is a question that many farmers have never thought of seriously and our tests, started five years ago, have opened our eyes to its importance. We have found that good seed from fertile soil are better than good seed from poor soil; that is, they will produce better crop

yields. A five-year test with oats and a one-year test with corn give very striking results in favor of fertile soil.

PER ACRE

OATS (av. increased yield, 5 yrs. fertile soil) . . . 3.5 bu.
CORN (av. increased yield 1 yr. fertile soil) . . . 4.27 bu.

The suggestion from this test is, that every farmer should select his planting seed from the very best soil, from the best environment, basing his selection on the field and not from the barn.

Cleaned Seed vs. Uncleaned Seed

The cleaning and grading of planting seed is a thing that has been brought to the attention of the farmers time after time, and yet we find a great majority of the farmers, some of them our best farmers, planting their seed just as they come from the field at harvest time.

Will it pay you to plant small seed that do not have the power to produce strong, healthy plants? Will it pay you to plant inferior seed, many of which will not come up when planted? Will it pay you to plant trash and broken seed that will be found in every lot of uncleaned seed? Will it pay you to plant seed that will give you trouble in planting, uneven stands and poor crop yields? IF NOT, then it will not pay you to plant seed that have not been thoroughly cleaned and graded.

The great increased yield derived from thoroughly cleaned and separated seed has led us to this conclusion, that SEED CLEANING AND SEPARATION is a tremendous factor in the production of good crop yields.

Our tests have been running for five years with oats, testing the yields from the seed that have been thoroughly cleaned, 50 per cent. removed, against seed as they come from the threshers, and the average results for the five years are given below:

OATS (average increased yields 5 years) . . . 10.8 bu.

CLEANED AND GRADED SEED, 50 PCT. REMOVED . . . PER ACRE

OATS (lowest increased yield for any year) . . . 1.6 bu.

CLEANED AND GRADED SEED, 50 PCT. REMOVED . . . PER ACRE

We do not separate any of the seeds we sell on a 50 per cent. basis, but it would pay the farmer to raise twice as many seed as he requires each year and separate them on this basis.

Owing to the small investment necessary for every farmer to have a seed cleaning machine, there is no excuse for the neglect of this important factor. Any farmer who plants as much as 20 acres of oats would save enough in one year to more than pay for his Seed Cleaner.

The Constitution of Good Seed

The results and experience of 15 years of Breeding and Experimental work lead us to suggest three factors that go to make up the constitution of good seed. We give them in the order of their importance.

- 1.—Good Breeding.
- 2.—Good Environment.
- 3.—Good Cleaning and Grading.

We are continually upbreeding the seeds we sell. Our plant breeding and experimental work with field seeds is, so far as we are informed, the most extensive of its kind carried on by any individual or firm in the cotton belt.



OUR PLANT AND FARMS

A work of the nature of commercial plant breeding and experimental farming could not be effectively executed without a complete equipment. Nor could we afford with such an undertaking to take any half-way steps. Our purpose is to furnish the most useful and valuable seeds and a mass of indispensable information gained from accurate experiments. Eventually we hope to furnish our seed in sufficient quantity to fill every requirement of our customers, but we are far from doing this at present.

Our seed plant consists of a Large Cotton Ginning Plant, directly connected with two Seed Cotton Receiving Houses, and a large Seed Breeding and Storage Warehouse. Three other ginneries are also required in ginning the different varieties of our Pedigreed cotton seed.

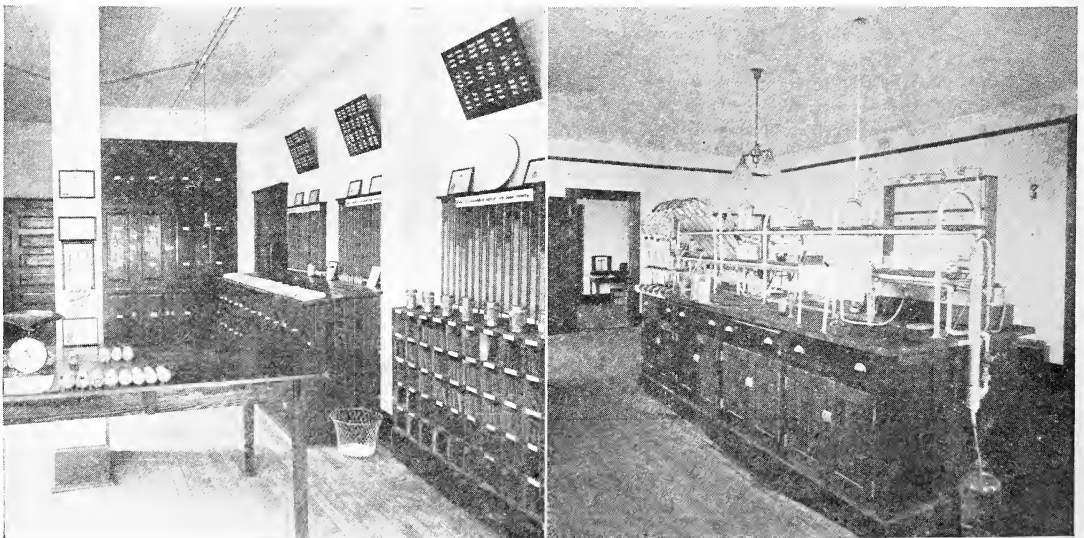
Our Seed Cotton Receiving Houses are designed to provide separate rooms for each strain of seed cotton and are directly connected with our Ginnery with suction pipes. Our Ginning Plants are arranged with the very best equipment for handling seed cotton before ginning, and for recleaning, grading and sacking the seed.

Our main Seed Warehouse is a three-story frame building, consisting of Storage Rooms, Seed Bins, Shipping Rooms, Laboratories, Plant Breeding Rooms, Germination Rooms, Fumigating Rooms and General Executive Offices. It was designed after a careful study of seed houses throughout the country, and we believe it unsurpassed in the South for handling field seeds. The equipment consists of modern seed cleaning machinery, especially designed corn nubbing machinery, automatic weighing machines and other equipment necessary to give a maximum efficiency. Nine modern seed cleaning machines are required to clean and grade our seeds.

So complete is our equipment that it is not necessary that any seed be handled by hand from the time it enters the building until it is automatically weighed into the bags, except seed corn, which is graded by hand. So complete are our facilities for handling orders that we are able in practically every case to fill an order the day it is received.

Our farms are devoted exclusively to the production of fine seeds with the exception of the acreage necessary for feed crops and cover crops. Our own farms, however, are insufficient to meet our requirement and we have therefore, found it necessary to use several additional farms operated under our direction, for seed production. At present more than 5 000 acres at and around Hartsville are used by us in the production of Coker's Pedigreed Seeds.

We sell no seed as Coker's Pedigreed except that raised from our own planting stocks and even when our stocks are exhausted we will not purchase and sell as Coker's Pedigreed, seed even from customers who bought from us the year before. It is only by this exclusive method that we are able to know and guarantee the purity and high quality of our seeds.



PLANT BREEDING ROOM AND CHEMICAL LABORATORY.

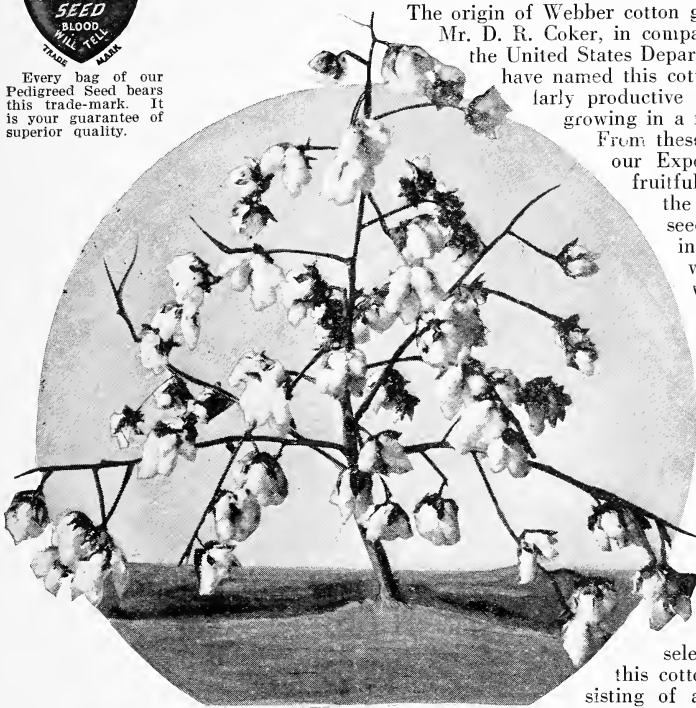


COKER'S PEDIGREED WEBBER NO. 82

Long Staple Cotton



Every bag of our Pedigreed Seed bears this trade-mark. It is your guarantee of superior quality.



WEBBER NO. 82, PLANT AND COMBED SEED.
(Engraved from Photograph.)

runs between 33¾ and 34½. The yield is greater than the yield of the parent Webber by 10 per cent. or more. Planters, cotton buyers, farmers, cotton mills, are all enthusiastic over this cotton, and it has found ready market this year at high prices.

This cotton seed was ginned at our private gin, and carefully graded. It is sacked in new bags. Every bag carries a card giving our purity and germination tests, and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure Seed Laws. The seed carries our registered trade-mark, which is our badge of distinction and guarantee of quality.

PRICES: \$2.40 a bushel for 20 bushels and more; \$2.50 a bushel in smaller quantity.

Estill, S. C.—Two years ago I bought some of your Webber No. 82 long staple cotton and planted it. The results were so satisfactory that lots of my neighbors bought seeds from me and all of us have made a handsome profit by using it.

Oct. 10th.

S. M. C.

The origin of Webber cotton goes back to 1907, when our President, Mr. D. R. Coker, in company with Dr. H. J. Webber (then with the United States Department of Agriculture and for whom we have named this cotton), took a few seeds from a particularly productive and healthy plant of Columbia cotton growing in a field of that variety in Columbia, S. C. From these seed were produced twelve plants on our Experimental Farms the next year. The fruitfulness, length and general character of the cotton was so striking that all of the seed of these twelve plants were increased in 1909. Two rows were planted in our variety test of twenty-four varieties with the result that the Webber made more seed cotton than any other of the forty-six rows. These seed were increased the next year and this field formed the basis of our later breeding work with this variety. Year after year, we have carefully tested this cotton in variety tests against more than a hundred other varieties and strains with the result that Webber has stood at or near the top in yield and has surpassed in money value any cotton we have ever found except our latest two strains of Hartsville, which have about equalled the Webber.

In 1910, we began our new breeding work on Webber cotton, making plant selections from our twenty-five acre field of this cotton. In our 1911 plant-to-row test, consisting of about ninety rows, each planted from the seed of a different plant of Webber selected in 1910, several rows stood up splendidly in comparison with the general average. Two of the most striking rows in the block were numbers 2 and 49.

Our Webber No. 82 is the most productive strain of staple cotton of this variety we have ever produced. It has very large bolls (60 bolls average to the pound), makes 1¾ in. staple under good conditions, has a much smaller seed than the parent type and is earlier, being intermediate in this respect between the original strain of Webber and the 49. The percentage of lint



COKER'S PEDIGREED WEBBER NO. 49 LONG STAPLE COTTON

Strain No. 1



Our reputation and your crop are protected by this trade-mark.



The history of Coker's Pedigreed Webber No. 49 is parallel to No. 82. In our plant-to-row tests of Webber in 1911, rows

No. 49 and 82 showed their outstanding superiority over the other rows. The most noticeable and one of the most valuable characteristics of row No. 49 was its comparative earliness of maturity. This earliness of maturity combined with its good staple length and excellent quality of fibre at once indicated its adaptability for boll weevil conditions. In the breeding fields Webber No. 49 has made above

the average yield of a good quality of $1\frac{1}{4}$ in. to $1\frac{1}{8}$ in. staple, and was nearly all open before the other cotton was half open. It has larger bolls, 65 making a pound of cotton. Since 1911 we have selected and improved this strain, until now it has proven by actual test to be the superior

of any long staple cotton yet produced in the combination of earliness and character of staple. It is practically as early as any of the short staple varieties. For several years this cotton has been tested and grown in several sections of boll weevil territory and the universal report is THAT WEBBER NO. 49 IS THE BEST

STAPLE COTTON OF ITS LENGTH EVER PRODUCED FOR BOLL WEEVIL CONDITIONS.

Its earliness and rapidity in maturing combine just the qualities that make it valuable under boll weevil conditions. Outside of boll weevil territory, its earliness makes it especially profitable in short seasons when an early frost kills the top crop of late cottons. We have sold every bushel of this seed every year since we first produced it, and have had to refuse orders for thousands of bushels we could not fill.



WEBBER NO. 49 PLANT AND COMBED SEED
(Engraved from Photograph)

All of this seed was ginned on our private gin and carefully graded. It is sacked in new burlap bags. Every bag carries a card giving our purity and germination test and also a tag giving permit from the State Crop Pest Commission of South Carolina to transport the seed under the State Pure Seed Laws.

PRICES: \$2.75 a bushel for 20 bushels and more; smaller quantity at \$3.00 a bushel.

Belen, Miss.—Your Pedigreed Webber 49 is as early as any other variety of Long Staple Cotton that I know of, and I consider it much better as an all round cotton than the Express variety, which is planted as a boll weevil cotton. The Boll Weevil did not make its appearance here until about the 20th of July, and the crop at that time was so far advanced that if they did material damage we could not tell it. In my opinion it is the best variety of cotton grown for this section of the country.

Oct. 10th.

W. G. C.



COKER'S PEDIGREED WEBBER NO. 49 LONG STAPLE COTTON

Strain No. 2



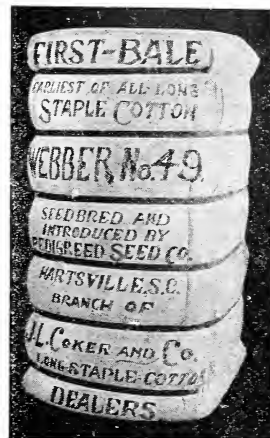
Look for this heart. It signifies quality.

Continuing our selecting and breeding work with Webber No. 49, always with the immediate object in view of developing the most satisfactory staple cotton for boll weevil conditions, we have produced Strain No. 2 Pedigreed Webber No. 49, which more nearly conforms to the ideal boll weevil type of cotton than the parent No. 49.

This No. 2 strain of Webber No. 49 cotton represents our best efforts to date to produce an early staple cotton that will make a good crop under boll weevil conditions. It represents the cumulative efforts of seven years of breeding for earliness. This strain embodies characters of earliness, productiveness, open—thin forage—type and good staple length, to a marked degree and is the best strain of our Webber 49 yet produced. This No. 2 strain makes full $1\frac{1}{8}$ in. staple under favorable conditions.

Webber No. 49 has been praised throughout Boll Weevil territory as an excellent cotton that will produce good crops even though the weevil infestation is heavy. This NO. 2 STRAIN, which is earlier and more productive, represents a further development of those desirable qualities which have already won for the parent Webber No. 49 strain its great popularity in the boll weevil territory.

PRICES: Only limited quantity offered in 1919. Sold out.



FIRST BALE ON MEMPHIS, TENN., MARKET, 1916.

COKER'S PEDIGREED KEENAN—(GOODSON)

Long Staple Cotton



All seed under this trade-mark possess a crop guarantee as near as nature will permit.

Keenan—(Goodson) is a medium season, semi-cluster, large, round boll (60 bolls to the pound), productive upland staple cotton, producing 33 per cent. lint of splendid character. It has large seed and produces a very vigorous plant, having one main upright stalk and usually two ascending basal branches. Coker's Pedigreed strain is superior in length and quality of staple, usually running $1\frac{1}{8}$ inches. This cotton is one of the easiest to pick of any staple variety and is highly resistant to most diseases.

We cannot recommend this cotton for boll weevil territory, as it is not early enough.

All of this seed was ginned in our private gin and carefully graded. It is sacked in new cotton bags. Every bag carries a card giving our purity and germination test and also a tag giving permit from the State Crop Pest Commission of South Carolina to transport the seed under the State Pure Seed Laws.

PRICES: \$2.25 a bushel for 20 bushels and more; smaller quantity at \$2.40 a bushel.

DILLARD & COFFIN CO.

Cotton Factors

Memphis, Tenn.

Pedigreed Seed Co., Hartsville, S. C.

Dear Sirs:

For several seasons past we have been recommending to our shippers your Webber cotton, and take pleasure in stating that our reports from this seed are universally satisfactory. In our salesroom we find the Webber cotton especially desirable on account of its evenness as well as strength of fiber. Your Webber No. 49 we consider a most desirable cotton to be planted by those wishing an early staple. We do not know of a cotton superior to your Webber No. 49 for the Mississippi Delta, and have taken pleasure in freely recommending it to our shippers.

Dillard & Coffin Co.

(Signed) Paul Dillard, President.



COKER'S PEDIGREED HARTSVILLE NO. 12

Long Staple Cotton



The value of seed depends largely on the confidence shown by the liberality of the guarantee behind the goods. This trade-mark speaks for itself.

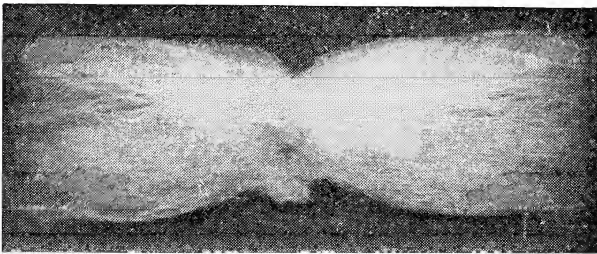


In breeding New Strains of cotton there are many items that must be considered: General type of plant; yield; length, strength and uniformity of staple; percentage of lint; strength of plant; ability to resist disease; earliness of maturity, etc., etc. All these and many other items enter. Manufacturers and buyers demand certain virtues in cotton, while the planter demands others. Our efforts in breeding cotton have been toward the perfection of a

strain of cotton that will answer as nearly as possible the demand of the planter, buyer and manufacturer alike. The task is not an easy one. To find and fix the desired qualities hundreds of experiments, years of careful, scientific work and great expense are necessary.

Pedigree plant breeding is an endless process toward perfection. No matter how excellent a product may be, there is always room for further improvement and selection. We are at all times selecting, breeding and testing new strains of our selected varieties, striving to produce a plant of greatest value to the farmers and to the buyer of his product.

Hartsville No. 12 represents a later selection and a more valuable cotton than its predecessor, No. 11. It is the earliest and most productive strain of Hartsville cotton we have yet produced. Its pedigree traces back to 1902, but it is much earlier and carries a higher percentage of lint and longer fibre than any other strain of Hartsville we have previously bred. The type of this cotton is open growing with rather light foliage, large round bolls that open wide and fluffy, making it much easier to pick than other strains with more pointed bolls (55 bolls of this cotton make a pound).



HARTSVILLE PLANT AND COMBED SEED
(Engraved from Photograph)

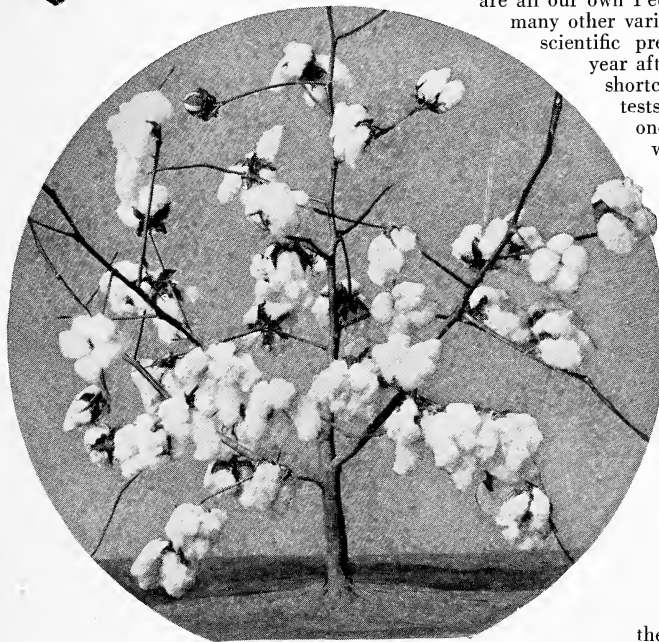
The lint percentage of this strain runs about 33 per cent. including the weight of bagging and ties, which is about $1\frac{1}{2}$ better than our other Hartsville Strains. Under good conditions the staple will run full $1\frac{1}{8}$ in. The type, productiveness and earliness of this cotton, combined with its lint percentage and length, makes it the most desirable strain of Hartsville cotton that we have yet offered.

This cotton seed was ginned at our private gin, and carefully graded. It is sacked in new bags. Every bag carries a card giving our purity and germination tests, and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure Seed Laws. The seed carries our registered trade-mark, which is our badge of distinction and guarantee of quality.

PRICES: \$2.40 a bushel for 20 bushels and more; smaller quantity at \$2.50 a bushel.



SHORT STAPLE COTTONS.



CLEVELAND PLANT. (Engraved from photograph.)

Growers have recognized the high quality of this variety to the extent that this cotton is grown by a larger number of progressive farmers, seed growers and breeders than any other variety of cotton.

The popularity of this cotton, and the many strains of this variety sold under other names, is due to the fact that Cleveland Big Boll cotton makes good. Year in and year out, it is a variety to be depended on. It is not spectacular, it will not make three bales to the acre nor will it turn out half lint. But it will make as much cotton, year after year, as any other short staple variety that has thus far been tested over a long period of years.

The finest strains of the Cleveland variety are a great improvement over the original type. Our latest selections mature earlier than the parent, making this strain one of the earliest maturing cottons. This fact is of greatest importance under boll weevil conditions, because a few days difference in earliness often means the difference between profit and loss on the crop. The yield of Coker's Improved Cleveland averages near the highest in our variety and experimental tests. In our tests last year it ran highest in early yield of seed cotton of 60 varieties tests. The per centage of lint is 38. The lint is uniform and full inch staple—qualities that make the cotton much more desirable to the buyer and to the cotton mill. It has large bolls (60 bolls make a pound) and is easy to pick. Our Coker's Improved Cleveland is descended originally from the Wannamaker strain of this cotton. Every year we test out many strains of the Cleveland variety, and our tests prove conclusively that Coker's Improved Cleveland is not surpassed in any quality by any strain of this variety yet produced.

In no year has the supply of our Improved Cleveland Big Boll seed been sufficient to fill the demand. After our own breeding stocks of this seed are sold, or booked, no further orders are accepted. In both 1916 and 1917, we returned more orders which we could not fill than we were able to fill. This year, our larger seed blocks will enable us to fill orders for larger quantities. At the time this is written, however, more than two-thirds our stock of this variety has been sold.

This cotton was ginned at our private gin, and carefully graded. It is sacked in new bags. Every bag carries a card giving our purity and germination tests and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure Seed Laws.

PRICES: \$2.25 a bushel for 20 bushels and more; smaller quantity at \$2.40 a bushel.

Every year we conduct variety tests of the principal varieties of both long and short staple cottons. Included in these tests are all our own Pedigreed varieties and strains of cotton and many other varieties as well. These tests, conducted with scientific precision and impartiality, and carried on year after year, show up the virtues as well as the shortcomings of all the varieties tested. These tests afford a comparison of the varieties with one another and give an excellent basis on which we may determine the relative merits of all.

In our tests for the past several years, the highest yielding short staple varieties have been Cleveland Big Boll and Cook's Improved. These we consider the best short staple cottons for four reasons: (1st) They are the heaviest yielders; (2nd) They have medium to large bolls; (3rd) They have uniform lint; (4th) They are easy to pick. To planters of Short Staple Cottons we recommend these varieties.

COKER'S IMPROVED (WANNAMAKER) CLEVELAND BIG BOLL.

Without question Cleveland Big Boll is the most popular variety of short staple cotton.



COKER'S PEDIGREED COOK'S IMPROVED.

Of the short staple varieties, Cook's Improved has always stood at or near the top in yield in variety tests conducted all over the South. In our own tests for the past eight years, Cook's Improved has made heaviest yields, out-ranking slightly Cleveland Big Boll. Reports from the Alabama, Georgia, North Carolina and South Carolina Experiment Stations show this cotton to be one of the best varieties tested.



Consistent good records for yield, combined with its earliness of maturing, size of boll, easy picking qualities and high per centage of lint, make Cook's Improved one of the most valuable varieties for the cotton planter.

In breeding our Coker's Pedigreed Strain of Cook's Improved, we started with the most productive and most desirable type of this cotton we could find. While the yield of the original type was excellent, there was a marked variation in different plants in size of boll, earliness, storm resistance, uniformity and length of fibre and per centage of lint turn-out. Our breeders, therefore, immediately began extensive tests of hundreds of plants in plant-to-row tests, to find and develop a strain of Cook's Improved that would meet as nearly as possible all the requirements and eliminate the undesirable variations. After five years of breeding and experiment, our plant breeding organization has developed Coker's Pedigreed strain of Cook's Improved. This strain originally descended from the best plants in our 1915 plant-to-row test.

This Pedigreed strain of Cook's Improved proved to be the heaviest producer of lint cotton of all varieties tested in our 1917 and 1918 tests. In production of seed cotton, it stood first among 60 varieties in our 1918 tests. The high per centage of lint, averaging above 40 per cent., gave this new strain the record for heaviest yield of lint in both years, in this respect slightly exceeding the Cleveland Big Boll. Our Pedigreed strain has exceeded the yield of the parent type of Cook's Improved in every test.

Coker's Pedigreed Cook's Improved cotton is very early. It is a semi-cluster cotton, makes a medium large boll (63 bolls make a pound), is highly storm resistant and has a small seed. Although the original parent Cook's Improved was susceptible to anthracnose to a large extent, we have found only slight traces of this disease in our Coker's Pedigreed strain.

We confidently recommend this cotton to planters whether in the boll weevil territory or not.

This cotton was ginned at our private gin, and carefully graded. It is sacked in new bags. Every bag carries a card giving our purity and germination tests and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure Seed Laws.

PRICES: \$2.40 a bushel for 20 bushels and more; smaller quantity at \$2.50 a bushel.



In all strains of seed covered by this trade-mark we have made a distinct improvement on the parent type.

WILT-RESISTANT COTTON.

Recognizing the demand for cotton which will grow on land infected with wilt (blight), and realizing that the production of cotton having this quality is primarily a task for the seed breeder, we undertook the variety which is generally accepted as best for wilt conditions, Dixie. The Director of the Wilt Investigations of the United States Department of Agriculture furnished us seed of the finest and most productive plants of this variety produced by the Government and with this as a basis we have started pedigree breeding. The improved strain we are offering you this year represents the best strain of this cotton developed by the Government plant breeders.

Farmers' Bulletin No. 265 of the United States Department of Agriculture gives details of the Wilt-Resistant Investigations conducted by the Government and may be obtained by writing to the Department. The following extract and description of the Dixie variety is quoted from this bulletin:

"The commercial varieties of cotton differ considerably in their susceptibility to wilt, but none of them are sufficiently resistant to be grown profitably on wilt-infected land. As the result of many tests it has been found that the large-boll cottons, such as the Russell, Cleveland, Truitt, and Rogers, are in general more subject to wilt than other groups. Some of the small-boll varieties have shown considerable resistance and have been used as a basis for the breeding of resistant strains.

"The experiments of the Bureau of Plant Industry, which have now been carried on for fifteen consecutive years, have shown that the only practicable solution of the wilt problem is through the use of wilt-resistant strains developed by special breeding. Such cottons have been produced and grown successfully for the past eight or more years on thousands of acres of wilt-infected land in a large number of localities, until no doubt remains as to the possibility and practicability of controlling the disease in this way. During this period these varieties have been further improved by selection for greater resistance, larger yield, longer lint, higher percentage of lint, and other desirable qualities.

"The development of wilt-resistant strains requires breeding for several years by the careful methods described later in this bulletin. Mass selection from apparently resistant strains of existing commercial varieties will not suffice. The selection of apparently resistant plants from the varieties usually grown may occasionally lead to the development of a resistant variety, but will generally result in disappointment. Only by the selection of resistant plants from an inherently resistant strain, by the subsequent testing of these on wilt-infected land, and by the continuation of individual selections and progeny-row tests can a resistant variety be developed."

*Dixie Wilt-Resistant

"The second wilt-resistant variety developed by the Department of Agriculture was the Dixie. This has the branched pyramid habit of growth characteristic of the Peterkin group of varieties and on this as well as other accounts has gained much wider popularity than the Dillon. The Dixie had its origin in a selection made at Troy, Ala., of a plant presumably the result of an accidental cross between two of the numerous upland varieties planted there in 1902. It has been carefully bred by the plant-to-row method until well fixed and has been considerably improved in earliness, size of boll, and percentage of lint.

"The Dixie variety is now being grown very extensively throughout the wilt districts of Alabama, Georgia and South Carolina and is very largely displacing the Dillon.

"A technical description of the Dixie variety follows: 'Plant vigorous, wilt resistant, of medium height, pyramidal, nearly of the Peterkin type, usually with two or more large basal branches, and with long, slender, slightly drooping fruiting limbs; leaves of medium size; bolls of medium size, about 75 being required for a pound of seed cotton, easy to pick; seed small, weight of 100 seeds, 10 grams, variable in color, but typically covered with short greenish brown fuzz; lint about seven-eighths of an inch, percentage of lint to seed 34 to 35.'"

Our Improved Dixie requires only 68 bolls to make a pound of cotton, instead of 75, as indicated above for general strains.

PRICES: \$2.25 a bushel for 20 bushels and more; smaller quantity at \$2.40 a bushel.

*Dixie is a short staple cotton. As yet we have not developed a satisfactory wilt-resistant long staple variety, but are working along this line. We have tested many so-called wilt-resistant long staple varieties, but none of them have proved to be satisfactory from a standpoint of length and quality of fibre and yield under wilt conditions.



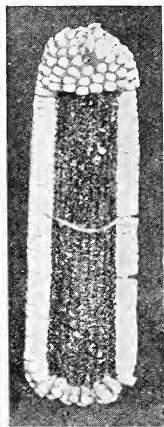
OUR CORN BREEDING WORK

Our Ear-to-Row breeding of corn, while similar to the Plant-to-Row breeding of other crops in principle, varies somewhat as to method of procedure to accommodate the habits of the corn plant. Corn is naturally an open fertilized plant and will not permit of too much inbreeding without a decrease in yield. We are obliged to practice therefore a method of breeding which will eliminate, as far as possible, this inbreeding factor. Our method of detasseling the breeding rows, and of pairing the "Ear Remnants" and detasseling again in the Increase Plots, prevents all inbreeding and enables us to produce Pedigreed Strains of high yielding corn. A great deal of experimenting has been done to determine the best method of breeding corn and the one we use is considered best.



ENGRAVING FROM PHOTOGRAPH SHOWING SECTION OF DETASSELED EAR-TO-ROW BREEDING BLOCK

We first select one hundred of the best quality ears we can find from the desirable stalks and make a record of each by number from one to one hundred. A separate row is then planted from each ear one-half acre long, and then beginning with the same ear, duplicate rows are planted, making two rows from each ear. The grains are spaced accurately in the rows and cultivated and fertilized all alike, using the same fertilizer as for the general crop. Notes are made of the qualities of every row throughout the season. When the corn begins to tassel, the tassels are carefully removed, in the first set of rows planted, from the even numbered rows, two, four, six, to one hundred, leaving the tassels on the other rows to fertilize the corn silks of all. In the second set of rows, the tassels are removed from the odd numbered rows, one, three, five, seven, to ninety-nine, leaving the tassels on the even numbered rows. This gives us one row from each ear detasseled and one row from each ear with the tassels, giving us one row from each ear that has been entirely fertilized by other rows.



AN "EAR REMNANT"

(Engraved from Photo.) We test out many ears every year. The "EAR REMNANTS" of the highest yielding rows are used for further testing the following year.

At harvest time we gather and weigh every row separately and record the weights of each. Notes are made as to quality and the best rows are determined, only the detasseled rows being considered and selected. After the best rows are determined, ears from these rows are selected for the next year's breeding work. The remaining best ears from these selected rows (previously selected from the desirable stalks and placed to themselves) are shelled and planted in a large increase block the following year. The "Ear Remnants," or that part of the ear left from planting the original best rows (which in the meantime have been carefully preserved) are then looked up and planted the following Spring in an isolated breeding plot, each ear being used in one section of the row as the female parent (detasseled) and in the other section as the male parent. The best corn is gathered from the detasseled section of these rows and is increased and selected year after year, until offered to the public. These new strains are tested every year in test plots with other strains and varieties and if they do not hold up in yield and quality, are discarded.



HANDLING SEED CORN

In order that our customers may understand exactly how we handle seed corn after it has been bred and selected in the field, we will carry them on an imaginary trip with a load of corn from the field through our warehouse until it is ready for shipment. We are now at the field. The corn has been selected, shucked and graded. We arrive at the warehouse, weigh our load and drive to the Receiving Chute from which the corn is conveyed into the building and is automatically released into any one of the big bins which has been prepared for it. It is now ready for inspection, regrading and nubbing. At the

bottom of these storage bins on the next floor is the nubbing and tipping machinery. As shown in the photograph reproduced here, a man sits at each bin, examines every ear as it comes down and if the ear is found all right in every respect for seed purposes, places it in the Nubbing Machine shown at the left of each operator, which shells off the grains from each end of the ear. These grains are carried to the Feed Bins below. The middle sections of the ears are then dropped into a Chute that leads to the Storage Bins in the basement and the inferior ears fall with the shelled grain into the Feed Corn bins. After the corn has passed examination and is nubbed and tipped, and conveyed to its proper bin, it then

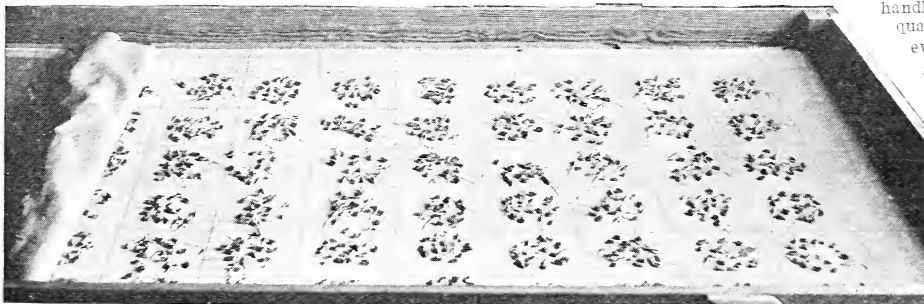


NUBBING AND SORTING SEED CORN IN WAREHOUSE

passes out through a conveyor into the Corn Sheller. From here the cobs are conveyed to the Boiler Room, where they are used as fuel, and the shelled grain is elevated to the Feeding Hopper of the cleaning and grading machinery. The corn then goes through our large grader and cleaner, where all the light, faulty, irregular and broken seeds and all trash are removed.

Six grades of product are made by this machine. The lowest is entirely discarded as trash. The next four are used as different grades of feed corn. Only the sixth grade, which contains only the heavy, mature, plump grains, is used for seed purposes. The seed corn is then carried by elevators to the third story bins, and from there the corn is fed into automatic scales, where it is weighed, sacked, tagged and sampled. A card is then placed in every bag on which is printed a description of the seed and information about the best method for growing the crop, and our guarantee of pedigree, purity and vitality of the seed. The bags are then sewed up and stored away until we have made germination tests of the samples. If any sample fails to germinate properly, that lot of seed is discarded for seed purposes and is thrown out with the feed corn. In no case will we ship out seed corn which does not test above 95 per cent. in germination. It is only by this accurate and comprehensive method that we are able to furnish seed corn which is worthy of our trade-mark and guarantee. It is very

obvious that we can handle only a limited quantity of seed corn every year and give it the careful personal supervision we do. This fact explains why some seasons we return orders for as many bushels of seed corn as we are able to fill.



GERMINATION TABLE SHOWING SPROUTING CORN

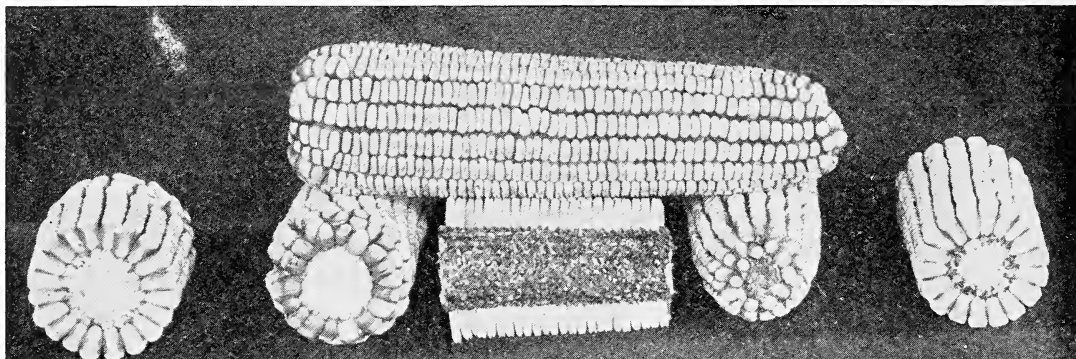
Each Square Contains Grains Taken From one Lot of Seed Corn to be Shipped.



A guarantee of perfection as far as can be perfect stands behind this trade-mark.

COKER'S PEDIGREED WILLIAMSON CORN

Williamson Corn is one of the oldest varieties of Southern corn planted in South Carolina. For many generations it was bred by field selection by Mr. Williamson (the father of Mr. McIver Williamson, of corn fame). In 1906 we began breeding this variety by planting an ear-to-row test from a number of apparently fine ears of Williamson corn. Ear E-1 came from a stalk which made two big weevil free ears weighing twenty-five ounces. It proved to be one of the highest yielders in an ear-to-row test and we therefore increased the strain in a breeding block. For the past nine years we have been breeding this corn by field selection of plants and the plant-to-row method, increasing the ears true to type year by year until we raised sufficient quantity to offer for sale.



EARS OF OUR WILLIAMSON CORN. (From actual Photograph.)
Note Depth of Grain and Well Filled Ends

DESCRIPTION. The color of the grain is light amber with white cap. The grains are hard and deep. The cob is red and has on the ear eighteen to twenty-two rows of grains. It shells out eighty-seven pounds corn to one hundred in ear. Shuck fits tight and fully protects the ear. Average height of ear on stalk four to four and a half feet.

HIGHLY RESISTANT TO WEEVILS. One of the most valuable features of any corn is its resistance to weevils. Most of the small eared prolific varieties and many of the large eared corns offered for sale in the South are so badly attacked by weevils after warm weather begins that they are hardly fit for man or beast. Our E-1 strain of Williamson corn, by careful breeding, has been brought to a high state of weevil resistance and while it is not entirely immune to weevils, it is more resistant than any other variety we know of.

SINGLE EARED. Planted one foot apart in six-foot rows by the Williamson plan, this corn usually makes one well filled ear to the stalk and in some cases two ears. A corn which makes a small number of ears and at the same time a large yield is the most valuable one to the farmer. It costs less to gather, shuck, shell and handle at every point. What you want is the largest amount of sound, weevil-free shelled corn per acre, of high feeding value, rather than a great number of small ears.

YIELD. In accurate tests for the past six years, our Williamson corn has stood at or next to the top every year except one, in yield of shelled corn per acre. Other varieties make two or three times the number of ears, but less actual shelled corn, and the nearest competitors in yield have fallen far below the Williamson in quality.

FODDER NOT PULLED. One of the best features of our corn is that we allow it to mature normally on the stalk without pulling the fodder or cutting down the plant. Thus all the seed are fully matured and vital. We have conducted accurate tests which show that seed from rows on which the fodder has been pulled at regular fodder-pulling time produced seventeen per cent. less in yield as against seed of the same variety from adjoining rows upon which the fodder had been left to dry upon the stalk. Much of the seed corn offered for sale in the South has been subjected to the destructive practice of fodder pulling, thereby lowering its vitality and productiveness. (Write for our special bulletin on fodder pulling.)

USE WILLIAMSON METHOD. Against early planting and early fertilizing, the Williamson method has averaged over twenty per cent. more yield in an accurately conducted four years' test on our farm. If you don't know what this method is, send for our circular fully describing it.

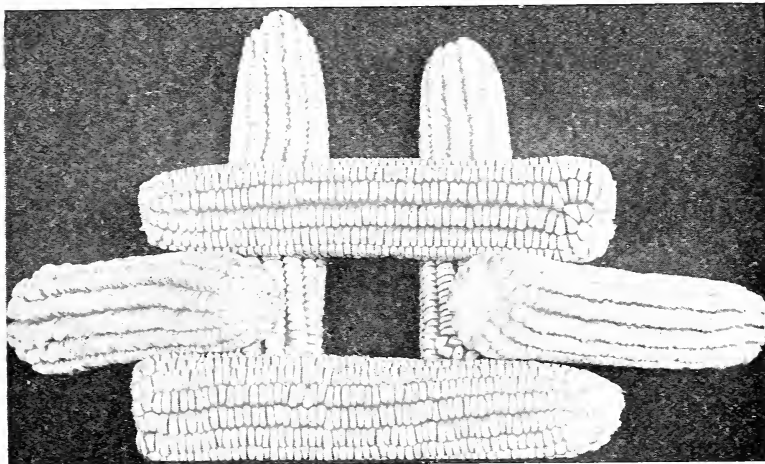
PRICES. One peck, \$1.50; one-half bushel, \$2.75; one bushel, \$5.00. Ten bushels and above at \$4.50.

United States Department of Agriculture, Bulletin No. 229, says: "The swindling practice of advertising and selling as well bred seed, a corn that has received no careful breeding is more common than the breeding of productive strains, and has caused many who have been imposed upon to discredit the merits of truly good seed corn. It is unwise to buy seed from parties whose method of corn breeding is unknown and whose truthfulness is not assured, and it is equally unwise to purchase in large quantity seed of a strain of corn that is not known to be adapted to the section in which it is to be planted."



OTHER VARIETIES OF SEED CORN

In addition to our breeding work with Williamson Corn we have for several years conducted extensive variety tests with practically all of the principal varieties of Southern corns. The results of these tests thus far have determined our selection of an improved strain of Marlboro and Garrick, in addition to our Pedigreed Williamson. In every case we have started with seed of the best strain of each variety obtainable and have bred it. We do not believe that a better corn of the varieties we offer can be obtained elsewhere in the South.



SAMPLE EARS SHOWING TYPE OF MARLBORO PROLIFIC
(Engraved from Photograph)

Coker's Improved Marlboro Prolific

Produces stalks of medium size and height, with ears at medium height from ground. It will produce two good ears to the stalk on good land. The grains are white to cream in color on white cobs. It is a medium hard corn and matures earlier than any of the single ear varieties. It is one of the heaviest yielding Prolific Corns that we have ever found and makes an excellent grade of meal. The seed we offer is from our own breeding blocks and is descended from a Pedigreed strain of this variety. This seed is pure bred, field selected, from nubbed ears, graded, and tested for germination. Fodder not pulled. No better seed of this variety can be obtained in the South.

PRICES: See prices on Garrick.



This trademark represents years of scientific experiments and thousands of dollars spent toward the perfection of better seed.

heaviest yielding of Southern varieties. PRICES: Coker's Improved Marlboro Prolific or Coker's Improved Garrick. One peck, \$1.25; one-half bushel, \$2.25; one bushel, \$4.00; ten bushels and above, at \$3.75.

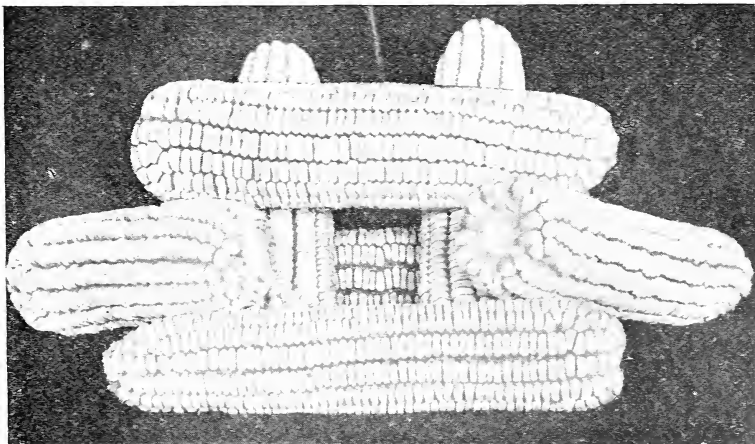
Coker's Improved Garrick

Garrick is a pure white corn of a prolific nature, usually making two good ears to the stalk. Medium size ears and stalk. It is very similar to Marlboro Prolific and is supposed by breeders to be descended from the Marlboro. The grain is rather soft and therefore does not withstand weevils as well as the more flinty varieties. The seed we offer was grown from our own select stock and originally descended from the best strain of this variety we have found. This seed is pure bred, field selected, nubbed graded and tested for high germination. Fodder not pulled. This variety of corn is one of the

Our Prices

Our prices for seed corn are substantially higher than former prices. We have found that it is impossible for us to devote the time and care in breeding, selecting, grading, nubbing, testing for germination and close personal supervision at every point, at the prices formerly charged. It was either a question of lowering quality or increasing the price, and we never lower quality.

We have discontinued selling seed corn in the ear. Practically all our regular customers prefer the shelled corn, which we have nubbed, tipped and graded, rather than go to the trouble and expense of doing this work themselves. Until there is a larger demand for ear corn, we will sell only shelled seed corn.



EARS OF GARRICK CORN
(Engraved from Photograph)



COKER'S PEDIGREED AMBER SORGHUM

Amber Sorghum as ordinarily known is a rather small growing sorghum with scanty foliage and open, sprangly heads. Coker's Pedigreed Amber is very different, having heavy foliage and very large cluster heads. It is not surpassed in seed production by any other variety in the South. It is much sweeter than the old Amber types and is very tender and juicy. It produces a very small stem, so that it is especially suitable for use as a hay crop. When sown thick it will make a tremendous yield of hay of fine quality that is relished by every kind of live stock. It also makes a splendid green forage crop and is most often used for that purpose. If sown in alternate rows with corn for silage purposes a much heavier yield will be obtained than from corn alone. This is a common practice in parts of the South. It is a very early variety, producing large, heavy seed heads, heavy foliage and small, very sweet stalks. Recommended especially for hay and green forage purposes.

PRICES: Peck, \$1.00; half-bushel, \$1.80; per bushel (50 pounds), \$3.50.

"Your Pedigreed Amber Sorghum is the very best Amber I have ever used. It made from four to six tons of forage per acre. If the South had been using this Sorghum for stock feed for the last twenty years it would have saved the farmers thousands of dollars."—Bamberg, S. C.

"I think your Pedigreed Amber Sorghum is the best I have ever planted. It makes more hog feed than anything I have ever tried. I expect to plant twelve acres in it next year."—Cope, S. C.



SUMAC—Heads of Our Pedigreed Sorghums—AMBER
(Engraved from Photograph)

COKER'S PEDIGREED SUMAC SORGHUM

Sumac Sorghum is especially adapted for use as a silage or green forage crop. It grows much larger than the Amber variety, producing coarse stalks, and consequently is not well adapted for use as a hay crop. This variety is known to be one of the heaviest yielders of forage and is grown extensively in many parts of the South, often as a silage crop planted in alternate rows with corn. It is also very often used as a green forage crop to be cut and fed green to stock. Our Pedigreed strain of this variety has been bred for production and we recommend it especially for silage and green forage purposes. It is a medium late variety, producing very close cluster heads, tremendous forage yields and large stalks.

PRICES: Peck, \$1.00; half-bushel, \$1.80; per bushel (50 pounds), \$3.50. This seed carries our trade-mark. It is carefully graded, tested for germination and sacked in new cotton bags.

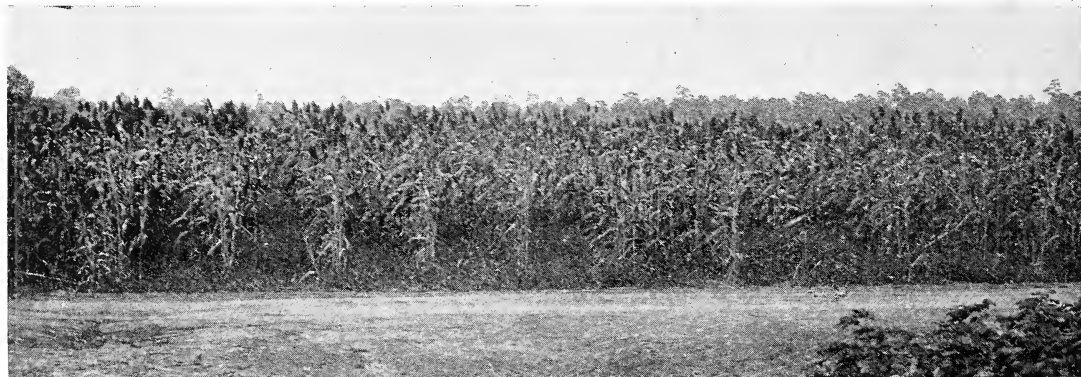
"Your Pedigreed Sumac Sorghum is excellent for silage. I made fifteen tons of silage to the acre and believe twenty tons could be made."—Dr. G. Y. H., South Carolina.

"Your Pedigreed Sumac is a very fine variety for Sorghum syrup. On light land it makes as pretty syrup as ribbon cane. I consider it one of the best varieties of sorghum for stock and man."—S. C.

HONEY SORGHUM.

Honey Sorghum is also known as Japanese Seeded Cane. Stems tall, very juicy, sweeter than any other variety known. One of the heaviest yielders of molasses. Syrup is thick and bright, flavor more nearly approaches Cane Syrup than any other sorghum. Seed head spangled, seed husk bright red. One of the most valuable syrup and forage sorghums known.

Our seed grown on our own farms and is re-cleaned and graded. We use this sorghum extensively for both syrup and forage purposes. PRICES: Peck, \$1.25; half-bushel, \$2.40; per bushel (50 pounds), \$4.50.



FIELD OF COKER'S PEDIGREED AMBER SORGHUM

(Engraved from Photograph)



Hundred Day Early Speckled Velvet Beans

This is a new variety and the earliest maturing of all. Will mature seed over the entire South, requiring from ninety days in Southern Alabama to a hundred and fifty in Northern Virginia. Not as rank a grower as the other varieties, but makes heavy yield in beans. In many cases as much as 40 to 50 and in some cases much greater number of bushels per acre. These beans should be planted in large quantities throughout the Carolinas and Georgia. See required, one-half peck to the acre. Our seed not grown by us.

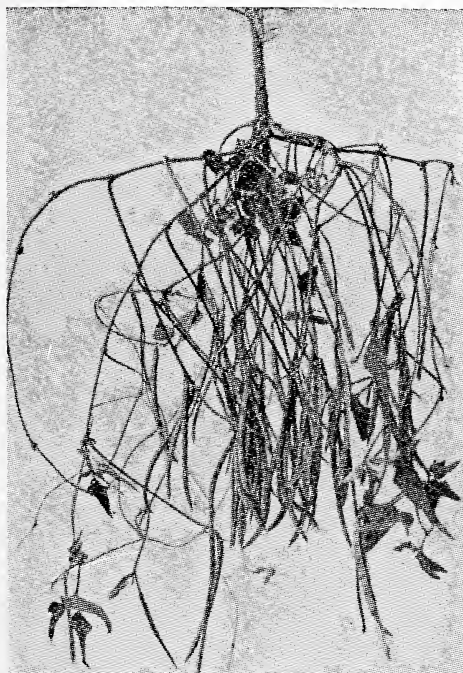
PRICES: Quart, postpaid, 25 cents. Not prepaid, quart, 15 cents; peck, 75 cents; per bushel, about \$2.50.

Osceola Velvet Beans

Data from our experiments with Osceola Velvet Beans is not complete at the time this catalogue goes to press, and we are therefore unable to give our own results with this variety.

The pods of Osceola Velvet Beans grow in large clusters and both pod and beans are larger than the Early Speckled variety. Planters in other sections claim approximately the same maturity for both Early Speckled and Osceola, but out tests seem to show that the Osceola matures a few days later. The Osceola bean is easier to pick, and it does not have the same tendency to sting the hands. From the apparent results of our tests, we urge

PRICES: Quart, postpaid, 40 cents. Not prepaid, quart, 20 cents; peck, \$1.00; per bushel, about \$3.50.



IRON WARREN PLANT

plant for hogs and makes excellent ensilage with corn. It can also be used for green manure, greatly increasing the supply of nitrogen in the soil. The use of the seed or meal as a substitute for cotton seed meal in feeding ration has given excellent results. It makes a high yield of seed and is easy to grow and harvest. It makes an erect plant, matures practically all the seed at the same time and is more resistant to unfavorable weather conditions, either of rain or drought, than cowpeas.

The Mammoth Yellow variety is the most largely grown in the South. It makes larger yields both of forage and seed than the other varieties. It usually grows from three to five feet high. Seed not grown by us.

PRICES: About \$3.00 per bushel.

Coker's Improved Groit Peas

(Whippoorwill X New Era)

This is a cross between the Whippoorwill and the New Era varieties made by the government several years ago and is usually known by the name Groit. It is superior to both the Whippoorwill and New Era, making a larger growth, and fruits more heavily. Leaves persist after pods are mature. Well adapted for forage and seed production. This seed is quite similar to the Whippoorwill, but has chocolate markings in addition to the blue specks. Our stock of these seed was bred to pedigree from a single plant selection grown from seed furnished us by the Department of Agriculture and has been upbred in yield. This is the best general purpose pea we have yet found—and we test every year all of the leading varieties of field peas.

PRICES: None for sale this year.

Coker's Pedigreed Iron Warren Peas

This variety is a cross between the Iron (a wilt resistant pea) and Warren's New Hybrid (a very productive bush pea), which was made on our farms in 1910. It is a very quick growing pea, makes a very heavy production of peas and average vine. It will keep well in the field. The seed are large and dark clay colored. We recommend this variety for planting in corn and in rows for seed production. It is the heaviest yielder we know of. It also makes a good variety for hog pasture. This pea has shown strong resistance to wilt, but on our present data we would not advise using it on cotton wilt lands.

PRICES: None for sale this year.

Mammoth Yellow Soy Beans

The Soy Bean is one of the most valuable leguminous crops for planting in the South. It is used ordinarily in the place of the cowpea and in many respects is superior. As a hay crop it is comparable to Alfalfa in feeding value. It also is a good pasture



Pearl or Cat Tail Millet

One of the heaviest yielding forage plants for the South. Makes a nutritious feed for continuous green cutting. Can be fed either green or cured and is relished by all kinds of stock. One planting furnishes two or three cuttings. It is a tropical plant and should not be sown until spring or early summer. Continues growing until frost. Drill in three-foot rows, ten pounds to the acre. If broadcast use twenty-five pounds or more.

PRICES: Postpaid, packet, 10 cents; pound, 30 cents. Not postpaid, pound, 22 cents. Quantity prices, about 20c a pound. Write for quotations. (Seed not grown by us.)

German Millet

Makes large yields of good quality feed. Seed grown in millet section of Tennessee. Sow one bushel to the acre and cut while in bloom. Sow after warm weather, in May, June and July. Matures in six and eight weeks after sowing. With Whippoorwill X New Era Peas, makes excellent combination hay crop.

PRICES: About 7 1-2 cents a pound. Write for quantity prices.

Sudan Grass

Probably the most valuable hay and forage crop that has been introduced in recent years. Closely resembles Johnson Grass but does not have the objectionable root system. Yields two to three cuttings of highly nutritious hay. Yields in the South from two to four tons per acre. Seems to be more resistant to drought than other hay crops. Grows well in mixture with the legumes, furnishing an upright plant for vines to cling on. The favorable results from tests on our Experimental Farms enables us to recommend Sudan Grass as hay crop for this section. The seed we offer is free from mixture of Johnson Grass or other foreign seed. It is best grade certified seed. We warn farmers against planting Sudan Grass seed of unknown origin or purity, as it is liable to contain Johnson Grass seed, which is very similar in appearance, or may come from a strain which has hybridized with Sorghum. Drill in rows about eighteen inches or two feet apart about five pounds to the acre, or broadcast twenty to twenty-five pounds per acre.

PRICES: Per pound, postpaid, 35 cents. Write for quantity prices. About 20 cents a pound.

Bermuda Grass

Bermuda Grass makes a most valuable perennial pasture grass for the South. Is an excellent soil builder. Sow in March or April, broadcast about six or eight pounds to the acre about one-half inch deep. Bermuda Grass and Burr Clover make an excellent combination and an all the year permanent pasture. No reseeding of either crop necessary. Seed not grown by us.

PRICES: Per pound, postpaid, 50 cents. Write for quantity prices. About 40 cents a pound.

Japan Clover (*Lespedeza*)

Japan Clover as a grazing crop has a distinct place in Southern Agriculture. It grows on worn out lands, where other crops fail and furnishes a nutritious permanent pasture. Can be sown broadcast without special preparation. Thickens rapidly and re-seeds itself without attention. Grows heaviest after first year. Sow in March or April about ten pounds to the acre. Our seed Texas grown.

PRICES: Per pound, postpaid, 50 cents. Write for quantity prices. About 40 cents a pound.

Dwarf Essex Rape

Rape makes an excellent grazing crop for cattle, hogs and sheep and splendid green crop for chickens. Sow in Fall, August to October, or in Spring, as early as possible, not later than April. Should be planted in good soil, such as would grow rutabagas and cabbages. Sow broadcast six to eight pounds per acre or in drills in thirty-inch rows, three or four pounds to the acre. (Seed imported.)

PRICES: Pound, postpaid, 25 cents. Not prepaid, 12 cents a pound.

Coker's Pedigreed Dwarf Okra

This okra is descended from one dwarf plant which was found in a patch of ordinary okra in 1912. It was strikingly different from any other plant, the joints being very short and the pods very large. Several flowers were hand-pollinated (selfed) and the seed from the resulting pods have been grown and selected since that time. It produces well, makes fine, large pods and very little bush as compared with ordinary okra. We have tested this okra and feel that it deserves a place in every garden. We have only a few seed for sale. They were raised on our own breeding plots.

PRICES: Postpaid, packet, 5 cents; ounce, 10 cents; one-quarter pound, 25 cents; pound, 75 cents. Not prepaid, pound, 65 cents.



WASHINGTON ASPARAGUS

Washington Asparagus is the first result of a plant breeding campaign for the eradication of asparagus rust as a factor in the commercial production of asparagus. The work was begun in 1906 by the United States Department of Agriculture, associated with the Massachusetts Experiment Station. This work has been carried out at Concord, Mass., by the Bureau of Plant Industry, but of late the work has been extended to other sections. This pedigree breeding work has produced several plants whose progeny are practically free

from rust. One male of this lot whose value was discovered in 1910 has been used as the male parent in making pedigree tests to select female plants since that time. The best of the seedlings produced in these tests has been planted at Concord and elsewhere in isolated fields to secure seed for commercial tests. The best of these plants were progeny tested at Hartsville in 1915 and the select seedlings grown in this test were used to plant a guard field around the Government seed field on one of our farms. Each plant used in this guard field was personally selected by the Bureau's expert for vigor and uniformity. In addition to its own value as a seed producing field, this asparagus is made more valuable by being alongside the pedigree strains being used by the Government, and as crossing takes place between the plants, the blood of these new strains as yet undistributed to the asparagus growers is blended with that of the guard rows around it. It is the seed from these rows that we offer for sale.

By the selection of only the best plants in our field we are giving customers the benefit of a triple selection. Only the best roots were planted in the field, only the best plants from these roots were used for seed production and only the best re-cleaned seed from these plants is sold to the grower.

Washington Asparagus is as far as possible an extremely resistant, vigorous and high yielding strain of giant asparagus. The plants represented in its pedigree of the last three generations are the best found in a ten-year search among millions of plant's tested. By best, we mean the ones that have produced offspring, uniform rust resistant, high yielding, large sized, of rapid growth, which indicates *tenderness*. A more uniform market type has not been seen among other so-called varieties that were in any degree rust resistant. While certain growers and seedsmen have advanced the claims of Argenteuil, Palmetto or Reading Giant, none of them has been found sufficiently uniform in good characters to justify their adoption as the basis of breeding work. From all of them certain good types of female plants have been taken after pedigree test for rust resistance and yield as suitable plants to combine with the plant "Washington," a male from a lot of very good roots secured in 1906 under the name "New American." Just where this strain originated we are now unable to discover, but it is probably related to Sutton's Reading Giant. Anyway, by taking the best we have now the "Washington" Asparagus is a truly American strain, free from the blight of the rust of Central Europe.



TWO-POUND BUNCH

COKER'S PEDIGREED WASHINGTON ASPARAGUS.
(Above Photograph About One-Half Actual Size.)

PRICES: Postpaid, packet, 25c; ounce, 40c; $\frac{1}{4}$ -lb., \$1.25; $\frac{1}{2}$ -lb., \$2.25; lb. \$4.00; 5 lbs. and above at \$3.50.



Coker's Special "Clipper" Seed Cleaner and Grader

It Removes all light, immature and worthless seed and all trash and foreign matter—by double screens and vertical air blast method. The most effective seed grader on the market. It DOES EFFECTIVE WORK with all Southern seeds, including Wheat, Oats, Rye, Barley, Cotton, Corn, Peas, Sorghum, Soy Beans, Burr Clover, Kaffir Corn, Vetch, Milo Maize, Alfalfa, Millet, Rape, Crimson Clover, Onion Seed, etc. All "Coker's Special Clippers" are fitted with a special assortment of screens for Southern seeds, and furnished complete with TWELVE SCREENS.

Coker's Improved No. 22-B Clipper Seed Cleaner

A recently perfected improved model specially designed for cleaning and grading cotton seed. Also cleans and grades other seeds, grain and beans. The most perfect model seed cleaner for the Southern farmer.

NEW FEATURES: Force feed roller, adjustable, to insure even feed of cotton seed; clutch throwout for feed roller; double grooves for changing elevation of lower screen.

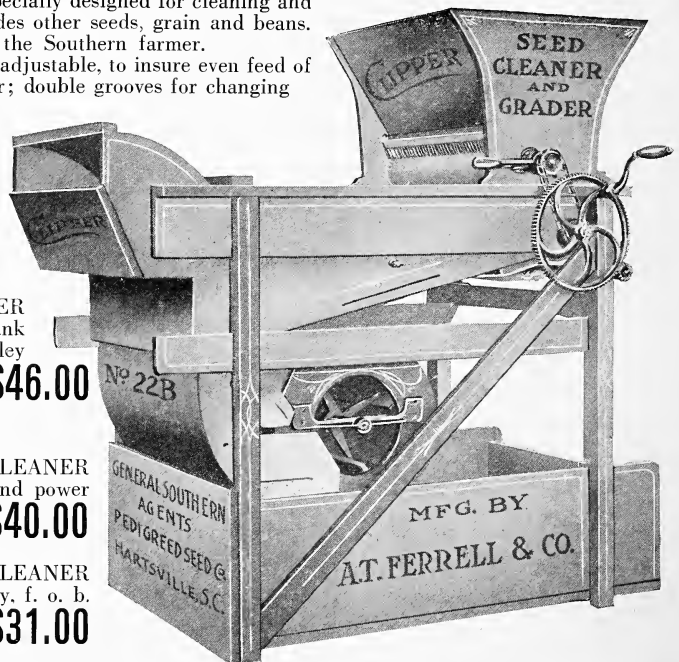
Simple in Construction.
Easy to Operate.
No Complicated Parts.
No Extras.
Will Last Indefinitely.
Operates by Hand or Power.

COKER'S IMPROVED No. 22-B CLIPPER CLEANER, equipped with 12 screens, crank pulley for hand operation and power pulley for operation by engine, COMPLETE, net cash, f. o. b. Hartsville, S. C. **\$46.00**

OTHER MODELS

COKER'S SPECIAL No. 2-B CLIPPER CLEANER equipped with 12 screens, crank pulley and power pulley, f. o. b. Hartsville, S. C. Price, Cash with Order..... **\$40.00**

COKER'S SPECIAL No. 1-B CLIPPER CLEANER equipped with 12 screens and crank pulley, f. o. b. Hartsville, S. C. Price, Cash with order **\$31.00**



OUR GUARANTEE: Try out any of the above machines for thirty days and if not satisfactory in every respect, ship it back and get your money.

In tests conducted by the Department of Agriculture, (Bulletin No. 25), cotton seed properly graded, made an increased yield of 103 pounds seed cotton per acre in one test and an increase of 88¾ pounds in another test against the same seed not graded. These results speak for themselves.

For further information, write for our special bulletin describing "Coker's Special Clipper" Cleaners.

Pedigreed Seed Company, Hartsville, S. C.

GENERAL SOUTHERN AGENTS

For North and South Carolina, Georgia, Florida, Alabama, Mississippi and Louisiana.

READ CAREFULLY BEFORE ORDERING

PRICES.

Our prices are for cash with order. If remittance is not sent with order, it means a delay until we can write you and receive the amount. Customers who have established their responsibility may have shipments made with sight draft attached to bill of lading.

We make no special prices or reductions. We believe our seeds are worth what we charge for them, to one customer the same as another. In case of general changes in price (owing to market fluctuations) orders received after the change will be filled at the new prices.

Remittance may be made by personal check, bank check, money order, cash or stamps. We are not responsible for your order until it reaches us.

SHIPMENTS.

Our excellent facilities enable use to fill practically every order the same day it is received. We exercise the same care with small orders as with large ones, but make a small additional proportional charge for the extra expense of handling, sacking, etc. This expense is included in the prices quoted.

On seed quoted Postpaid, we pay all delivery charges. But all prices marked not prepaid, and all bulk prices, including pecks, half-bushels, bushels and above, **DO NOT INCLUDE** transportation charges, and such shipments will be sent by express or freight collect, unless such charges are added to the prices quoted.

OUR GUARANTEE AND RESPONSIBILITY.

Attached to every bag of seed we ship is a card on which is printed the percentage germination and purity of that particular lot of seed. In no case do we ship seed that does not measure up to the highest standards.

Our **PEDIGREED** Seeds are bred by the plant-to-row method on our own breeding farms and we guarantee them true to name. Our **IMPROVED** Seeds are bred by general or mass selection and are also guaranteed true to name. Our **GENERAL** Seeds (those not otherwise classified as **PEDIGREED** or **IMPROVED**) are not bred by us, but otherwise are as good quality as can be obtained. On **GENERAL** Seeds, however, we give no warranty, expressed or implied, as to description, quality or productiveness.

EXAMINE OUR SEEDS when you receive them and test them in any way you see fit. If for any reason they are not satisfactory, they may be returned to us within ten days after they are received, in the original package, **AT OUR EXPENSE**, and **WE WILL REFUND ENTIRE PURCHASE PRICE**. We waive all responsibility for seeds which have been in a customer's hands more than ten days, as the vitality of any seed may be lessened or killed after leaving our warehouse, by subjection to moisture, heat, brine, chemicals, etc. Under no circumstances will we be responsible for the germination of seed after they are planted, whether within ten days or not, as there are many reasons for imperfect germination of planted seeds other than their vitality. In no case do we accept responsibility for more than the purchase price of seed. If purchaser does not accept seed under this condition, they are to be returned at once.

OUR GROWTH IS NO MYSTERY.

The large and increasing demand and wide popularity of Coker's Pedigreed Seeds is no mystery. Its explanation is simple to those who know our seeds, our methods and our men. Briefly, it is: We make no claims which our seeds do not prove; we give the best quality seeds that careful and expert breeding can produce; we exercise a personal care in handling our seeds at every point, recleaning and separating out all except the strong and vital; we sell only such seed as we can guarantee for high germination and purity, and give actual percentage figures of every lot; we stand absolutely behind every seed we sell with our sixteen years' reputation as breeders, with a substantial commercial backing and with a money-back guarantee; we give prompt and efficient service in our shipping department; and finally, we never allow any complaint, no matter what its nature, to go without a prompt investigation, and if well founded, a satisfactory settlement with the claimant. These are the methods and policies under which our work has grown from a small, one-man local enterprise, to one that now reaches every Southern State.

PEDIGREED SEED COMPANY

DAVID R. COKER, President,
HARTSVILLE, SOUTH CAROLINA.

HOW TO HAVE SEED SHIPPED.

Shipments of twenty pounds and less to points within the second zone from Hartsville (within 150 miles, including all points in South Carolina and Central Southern part of North Carolina) are usually cheapest by parcel post. The amount of postage must always be added to the price quoted.

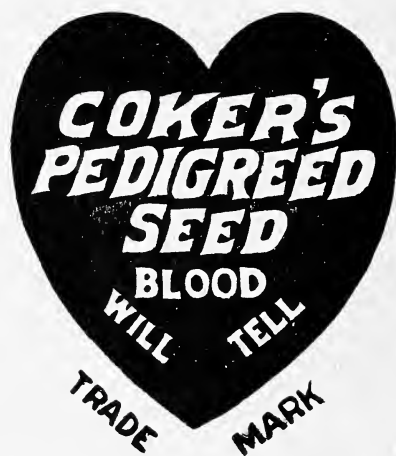
Small shipments to a distance are usually cheapest by express. If you are not sure about cheapest way to have shipment made, send us sufficient amount to pay charges and we will send cheapest way and return to you any balance after paying charges.

Large shipments are always cheapest by freight. If your station is a prepaid freight station, the amount of freight charges must be added to your remittance.

WHEN SEED ARRIVE

Our seed are put up in substantial bags and boxes and delivered to the railroads in good order. When seed arrive in bad order, do not accept the shipment or pay the freight until your station agent makes a statement to that effect on your receipted freight bill. Send this freight bill to us and we will make claim and collect it from the railroad company for you.

You have ten days in which to examine and test our seeds in any way you may see fit. If they are not perfectly satisfactory in every way, return them to us in the original packages at our expense, and we will refund your money. However, we will not refund money for seed that have been in a customer's hands for more than ten days, nor entertain any claim after that time.



**THE GUARANTEE
OF QUALITY**